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EXPERIMENT STATION FILE

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# United States Department of Agriculture,

BUREAU OF ANIMAL INDUSTRY.

A. D. MELVIN, CHIEF OF BUREAU.

## OPHTHALMIA IN CATTLE.<sup>1</sup>

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### CONJUNCTIVITIS (SIMPLE OPHTHALMIA).

This is an inflammation of the conjunctival mucous membrane of the eyeball and lids; in severe cases the deeper coats of the eye are involved, seriously complicating the attack.

*Causes.*—It may result from a bruise of the eyelid; from the introduction of foreign matters into the eye, such as chaff, hayseed, dust, gnats, etc.; from exposure to cold; poisonous or irritating vapors arising from filthiness of stable. Dust, cinders, or sand blown into the eyes during transportation frequently cause conjunctivitis.

*Symptoms.*—A profuse flow of tears, closure of the eyelids from intolerance of light, retraction of the eyeball and corresponding protrusion of the jaw, disinclination to move, diminution of milk secretion, etc. On parting the lids the lining membrane is found injected with an excess of blood, giving to it a red and swollen appearance; the sclerotic, or white of the eye, is bloodshot and the cornea may be cloudy. If the disease advances, keratitis results, with its train of unfavorable symptoms.

*Treatment.*—Careful examination should be made to discover particles of chaff, etc., which may have lodged in the eye, and upon the discovery of such a cause prompt removal is indicated. This may be accomplished by flushing the eye with warm water by means of a syringe, or, if the foreign substance is adherent to the eyeball or lid, it may be scooped out with the handle of a teaspoon or some other blunt instrument. To relieve the congestion and local irritation, a wash composed of boracic acid in freshly boiled water, 20 grains to the ounce, or acetate of zinc, 5 grains to the ounce of pure soft water, may be used, to which may be added 20 drops of laudanum. A few drops of this should be placed in the eye with a camel's-hair pencil

<sup>1</sup> Reprint from Special Report on the Diseases of Cattle. 1916.



or soft feather three or four times daily. The animal should be placed in a cool, darkened stable, and then a cloth folded into several thicknesses should be fastened to the horns in such manner as to reach below the eyes. This should be kept wet with cold water during the day and removed at night. If there is much fever and constitutional disturbance it becomes advisable to administer 1 pound of Epsom salt dissolved in 1 quart of water.

INFECTIOUS CATARRHAL CONJUNCTIVITIS (SPECIFIC OPHTHALMIA).

This generally appears in an enzootic or epizootic form, and affects a considerable number in the herd. It is distinctly a contagious disease and may be brought into a previously healthy herd by one infected animal. It may continue in a herd for a season or for several years, affecting all newly purchased animals. It is seldom seen in the winter months. It affects old and young animals alike.

*Symptoms.*—This form of catarrhal conjunctivitis is characterized chiefly by a mucopurulent discharge from the eyes, an intense degree of inflammation of the mucous membrane, accompanied by swelling of the eyelids and an early opacity of the cornea. The flow of tears is mixed with pus, sometimes streaked with blood, and the skin of the face is kept moist and soiled. The eyes are kept continually closed. The implication of the cornea in the disease frequently blinds the animal for a time, and occasionally suppurative keratitis, ulcers of the cornea, or staphyloma supervene. The attack is marked from the onset by fever, partial loss of appetite, partial loss of milk, suspended rumination, and separation from the herd.

*Treatment.*—The animal should be housed in a cool, dark stable, supplied with plenty of fresh water to drink and soft succulent feed. Administer 1 pound of Epsom salt—if a very large animal, use 1½ pounds—dissolved in 2 or 3 pints of water. For an eyewash take boracic acid, 1 dram, and pour 4 ounces of boiling water over it. Use this as often as is convenient, applying it directly to the eye. In the majority of cases improvement becomes manifest in a few days, and the eye becomes clear and free from inflammation in 10 days or 2 weeks. Where the disease develops ulceration of the cornea, or well-marked deep-seated keratitis, the treatment recommended for those conditions should be adopted.

*Prevention.*—Whenever this affection appears in a herd all the unaffected animals should be moved to fields which possess a different character of soil and feed. The water should also be changed, especially if they have been obtaining it from a stagnant pond.